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* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
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NEWS	6	DEC 01	LISA now available on STN
NEWS	7	DEC 09	12 databases to be removed from STN on December 31, 2004
NEWS	8	DEC 15	MEDLINE update schedule for December 2004
NEWS	9	DEC 17	ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	10	DEC 17	COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	11	DEC 17	SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	12	DEC 17	CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	13	DEC 17	THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
NEWS	14	DEC 30	EPFULL: New patent full text database to be available on STN
NEWS	15	DEC 30	CAPLUS - PATENT COVERAGE EXPANDED
NEWS	16	JAN 03	No connect-hour charges in EPFULL during January and February 2005
NEWS	17	JAN 11	CA/CAPLUS - Expanded patent coverage to include Russia (Federal Institute of Industrial Property)

NEWS EXPRESS	JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

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* * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 07:35:05 ON 24 JAN 2005

=> file caplus

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COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'CAPLUS' ENTERED AT 07:35:17 ON 24 JAN 2005
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FILE COVERS 1907 - 24 Jan 2005  VOL 142 ISS 5
FILE LAST UPDATED: 23 Jan 2005  (20050123/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> reactor
        389533 REACTOR
        231356 REACTORS
L1      436322 REACTOR
                 (REACTOR OR REACTORS)

=> preheat?
L2       45882 PREHEAT?

=> l1(l)L2
L3        3537 L1(L)L2

=> ACRYLIC ACID
        240719 ACRYLIC
          1274 ACRYLICS
        241085 ACRYLIC
                 (ACRYLIC OR ACRYLICS)
       3927157 ACID
       1461249 ACIDS
       4401144 ACID
                 (ACID OR ACIDS)
L4      105288 ACRYLIC ACID
                 (ACRYLIC(W)ACID)

=> l3n and l4
             9 L3N
L5           0 L3N AND L4

=> l3 and l4
L6          24 L3 AND L4

=> d l6 14-24 ti

L6   ANSWER 14 OF 24  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Catalytic oxidation of olefins

L6   ANSWER 15 OF 24  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Catalysts for preparation of unsaturated acids and aldehydes
```

L6 ANSWER 16 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Unsaturated aldehydes and nitriles

L6 ANSWER 17 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Hydrocoumarin and coumarin flavorings and odorants

L6 ANSWER 18 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Catalyst for oxidation of olefins to unsaturated aldehydes or carboxylic acids

L6 ANSWER 19 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Oxidation of lower aliphatic aldehydes

L6 ANSWER 20 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Oxidation of propylene

L6 ANSWER 21 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Oxidation of α,β-unsaturated aldehydes in the presence of a catalyst containing vanadium, phosphorus, manganese, and oxygen

L6 ANSWER 22 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Catalytic polymerization of acetylenes and polyenes

L6 ANSWER 23 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Acrylonitrile and **acrylic acid** from propylene

L6 ANSWER 24 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Methacrylic acid and its esters

=> nitrogen
563853 NITROGEN
3495 NITROGENS
L7 566296 NITROGEN
(NITROGEN OR NITROGENS)

=> l6 and l7
L8 2 L6 AND L7

=> d l8 1-2 ti fbib abs

L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
TI Safe and rapidly practicable cleaning procedure for catalysts and reactor materials used in gas-phase oxidation process in the synthesis of (meth) **acrylic acid**
AN 2003:548783 CAPLUS
DN 139:101561
TI Safe and rapidly practicable cleaning procedure for catalysts and reactor materials used in gas-phase oxidation process in the synthesis of (meth) **acrylic acid**
IN Hammon, Ulrich; Schroeder, Juergen
PA BASF AG, Germany
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 10217325	A1	20030717	DE 2002-10217325	20020418
			DE 2002-10217325	20020418

AB A safe and rapidly practicable procedure for a renewed **preheating** and/or after-cooling of a reaction zone used in a catalytic gas-phase oxidation process used in the synthesis of (meth)acrolein and/or (meth)

acrylic acid, especially avoiding a damage of catalyst and **reactor** material, may be carried out, if the oxygen content of the gas stream used amts. maximally 9 weight%, preferably ≤5 weight%, whereby the gas stream may be the circulating gas, optionally mixed with air.

L8 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
TI Acrylonitrile and **acrylic acid** from propylene
AN 1964:425012 CAPLUS
DN 61:25012
OREF 61:4228h,4229a
TI Acrylonitrile and **acrylic acid** from propylene
IN Foster, Robert E.
PA E. I. du Pont de Nemours & Co.
SO 4 pp.
DT Patent
LA Unavailable

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 3118927		19640121	US	19591029

AB The problem of temperature control and localized concentration of gaseous reactants in exothermic, fixed-bed catalytic gas-phase reactions for producing CH2:CHCN (I) and CH2:CHCO2H (II) was avoided by diffusing one of the gases through a porous diffuser directly into the catalyst bed and contacting the diffused gas with the other reactant in the bed. Thus, a **reactor** (shown) was charged with 100 ml. of a K-AgCN-Ca(OH)2 on low-Fe silica (8-14 mesh) catalyst (U.S. 3,023,226, CA 57, 14948g) and 100 ml. acid-washed 8-14 mesh calcined quartz as a **preheater.** The catalyst was activated by heating at 400-20° (argon atmospheric). A mixture of argon (11 ml./sec.) and CH2:CHMe (III) (3.5 ml./sec.) was passed through the bed, and NO (2.7 ml./sec.) passed through a porous glass diffuser buried within the bed kept at 425-50°. The conversion of NO into I was 11% at 80% yield, the space time being 7 g./l. catalyst/hr. Several modifications were also described.

```
=> preheated gas
         23047 PREHEATED
       1405021 GAS
        481598 GASES
       1577505 GAS
                 (GAS OR GASES)
L9         268 PREHEATED GAS
                 (PREHEATED(W)GAS)

=> l6 and l9
L10          0 L6 AND L9

=> l4 and l9
L11          0 L4 AND L9

=> preheated reactor
         23047 PREHEATED
        389533 REACTOR
        231356 REACTORS
        436322 REACTOR
                 (REACTOR OR REACTORS)
L12         18 PREHEATED REACTOR
                 (PREHEATED(W)REACTOR)

=> l12 and l4
L13          0 L12 AND L4

=> logoff hold
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
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                                                        ENTRY    SESSION
FULL ESTIMATED COST                                     35.82      36.03

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)       SINCE FILE      TOTAL
                                                        ENTRY    SESSION
CA SUBSCRIBER PRICE                                     -1.46      -1.46

 SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 07:45:57 ON 24 JAN 2005

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PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 07:52:41 ON 24 JAN 2005
FILE 'CAPLUS' ENTERED AT 07:52:41 ON 24 JAN 2005
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COST IN U.S. DOLLARS                             SINCE FILE      TOTAL
                                                        ENTRY    SESSION
FULL ESTIMATED COST                                     35.82      36.03

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)       SINCE FILE      TOTAL
                                                        ENTRY    SESSION
CA SUBSCRIBER PRICE                                     -1.46      -1.46

=> d his

     (FILE 'HOME' ENTERED AT 07:35:05 ON 24 JAN 2005)

     FILE 'CAPLUS' ENTERED AT 07:35:17 ON 24 JAN 2005
L1        436322 REACTOR
L2         45882 PREHEAT?
L3          3537 L1(L)L2
L4        105288 ACRYLIC ACID
L5             0 L3N AND L4
L6            24 L3 AND L4
L7        566296 NITROGEN
L8             2 L6 AND L7
L9           268 PREHEATED GAS
L10            0 L6 AND L9
L11            0 L4 AND L9
L12           18 PREHEATED REACTOR
L13            0 L12 AND L4

=> d l6 1-14 ti

L6   ANSWER 1 OF 24  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Process for purification of waste gases containing oxygen and combustible
     components by thermal oxidation

L6   ANSWER 2 OF 24  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Process and apparatus for emulsion polymerization

L6   ANSWER 3 OF 24  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Safe and rapidly practicable cleaning procedure for catalysts and reactor
     materials used in gas-phase oxidation process in the synthesis of (meth)
     acrylic acid
```

L6 ANSWER 4 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Longitudinal-flow reactor for oxidation reactions consisting of tube bundles designed for heat exchange

L6 ANSWER 5 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Development of an ultra-rapid reactor for superabsorbent polymer

L6 ANSWER 6 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Alternating copolymers with good light transmittance and their preparation

L6 ANSWER 7 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Accelerated preparation of acrylate esters

L6 ANSWER 8 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Pressure-sensitive emulsion adhesive comprising a polymer system having good tack and peel strengths and enhanced shear strength

L6 ANSWER 9 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Apparatus and method for producing **acrylic acid**

L6 ANSWER 10 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Cycloaliphatic acrylate compositions

L6 ANSWER 11 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Continuous manufacture of acrylic polymer foam-based insulating material

L6 ANSWER 12 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Catalytic production of acrylic or methacrylic acid

L6 ANSWER 13 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Oxidation of propylene to acrolein and **acrylic acid**

L6 ANSWER 14 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Catalytic oxidation of olefins

=> d l6 9 ti fbib abs

L6 ANSWER 9 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Apparatus and method for producing **acrylic acid**
AN 1983:471293 CAPLUS
DN 99:71293
TI Apparatus and method for producing **acrylic acid**
IN Dutkay, Ervin
PA Intreprinderea Chimica, Risnov, Rom.
SO Rom., 3 pp.
CODEN: RUXXA3
DT Patent
LA Romanian
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI RO 76048	B	19810430	RO 1979-96377	19790125
			RO 1979-96377 A	19790125

AB **Acrylic acid** [79-10-7] is manufactured by continuously passing acrylamide sulfate [18185-97-2] containing 1.5-2.5 mol H_2SO_4 and polymerization inhibitor through a packed column, while water (**preheated** to the reaction temperature) is passed countercurrently through the column, with the residence time in the column being 0.9-1.5 h, the column temperature being 90-120°, and the column pressure being 0.85-0.97 mm, followed by allowing the reaction mixture to drain into a **reactor** from the column, with resonance time in **reactor** being 2-4 h, the **reactor** temperature being 140-160°, and the **reactor**

pressure being 0.85-0.97 mm. This single-step process gives high yields (e.g., 92.8%) and can be automated.

=> d l6 7 ti fbib abs

L6 ANSWER 7 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Accelerated preparation of acrylate esters
AN 1990:78163 CAPLUS
DN 112:78163
TI Accelerated preparation of acrylate esters
IN Powanda, Thomas M.; Imes, Robert H.; Collins, George L.
PA Hoechst Celanese Corp., USA
SO Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	EP 331845	A2	19890913	EP 1988-311335		19881130
	EP 331845	A3	19910605			
	R: BE, DE, FR, GB, IT, NL					
				US 1988-168564	A	19880307
	US 4859792	A	19890822	US 1988-168564		19880307
				US 1986-891991	A1	19860801
	CA 1326684	A1	19940201	CA 1988-584526		19881130
				US 1988-168564	A	19880307
	JP 01299252	A2	19891204	JP 1989-54844		19890307
				US 1988-168564	A	19880307
				US 1988-168565	A	19880307

PATENT FAMILY INFORMATION:
FAN 1990:121088

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	EP 331844	A2	19890913	EP 1988-311320		19881130
	R: BE, DE, FR, GB, IT, NL					
				US 1988-168565	A	19880307
	US 4868329	A	19890919	US 1988-168565		19880307
				US 1986-891990	A1	19860801
	CA 1326683	A1	19940201	CA 1988-584525		19881130
				US 1988-168565	A	19880307
	JP 01299252	A2	19891204	JP 1989-54844		19890307
				US 1988-168564	A	19880307
				US 1988-168565	A	19880307

AB The title esterification of an aliphatic hydroxy compound with **acrylic acid** (I) comprises adding one reactant to a **reactor** and heating from 100° to b.p. of I, adding the other reactant over time during which ≥65% H2O of reaction is removed, and then heating to completion of the reaction. Thus, 1 mol trimethylolpropane was **preheated** to 135-150° and added over 110 min to 3.3 mol I heated to 120° and H2O distillate was removed after 50 min, and the reaction continued for 5 h until the acrylate had acid number 0.11, free I content 0.013%, and viscosity 135 cPs. A process for preparation of the above acrylate not using **preheating** required 10 h to complete the reaction.

=> d l6 12-14 ti fbib abs

L6 ANSWER 12 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Catalytic production of acrylic or methacrylic acid
AN 1972:46658 CAPLUS
DN 76:46658
TI Catalytic production of acrylic or methacrylic acid

PA Societa Italiana Resine S.p.A.
SO Brit., 5 pp.
CODEN: BRXXAA
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 1242464		19710811		
			IT	19690609

AB **Acrylic acid** (I) [79-10-7] and methacrylic acid (II) [79-41-4] were prepared in improved yields by treating poly(oxymethylene) diacetate (III) and poly(oxymethylene) dipropionate (IV), resp., in the presence of an inert gas in the vapor phase with aluminum silicate (V). AcOH and III were introduced at 370-90.deg. to a **reactor** containing V, **preheated** at 300-450.deg. to give 75% yield of I. A mixture of IV and EtCO2H was introduced at 390.deg. with N to a **reactor** containing V, pretreated with LiOH, to give 90% yield of II.

L6 ANSWER 13 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Oxidation of propylene to acrolein and **acrylic acid**
AN 1971:88364 CAPLUS
DN 74:88364
TI Oxidation of propylene to acrolein and **acrylic acid**
IN Eden, Jamal S.
PA Goodrich, B. F., Co.
SO Ger. Offen., 8 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 2031618	A	19710121	DE 1970-2031618	19700626
			US 1969-838349 A	19690701
US 3634502	A	19720111	US 1969-838349 A	19690701
NL 7009746	A	19710105	NL 1970-9746	19700701
			US 1969-838349 A	19690701
GB 1275186	A	19720524	GB 1970-1275186	19700701
			US 1969-838349 A	19690701

AB Acrolein and CH2:CHCO2H were prepared by oxidation of propylene with oxy gen in the presence of Mo oxide, TeO2, and BPO4 at 375-415°. Thus, 123 g B(OH)3 was mixed with 85% H3PO4 in H2O, the mixture eva pd., and calcined 16 hr at 400° to give BPO4, which was mixed with a su supension of 203.29 g H2MoO4 in H2O and 63.84 g TeO2. The mixture was evaporated and calcined 16 hr at 400° and 21 hr at 450° to give a catalyst containing Mo oxide 75, TeO2 25, and BPO4 50 moles. A **reactor** was filled with 80 ml catalyst; steam 3.96, propylene 1, and oxy gen 4.02 moles (all **preheated** at 200-50°) were introduced, and the mixture w as heated 49 sec at 400° to give 49.82% acrolein and 31.80% CH2:CHC O2H at 100% propylene conversion.

L6 ANSWER 14 OF 24 CAPLUS COPYRIGHT 2005 ACS on STN
TI Catalytic oxidation of olefins
AN 1970:100057 CAPLUS
DN 72:100057
TI Catalytic oxidation of olefins
IN Trapasso, Louis E.; Wenrick, John D.
PA Goodrich, B. F., Co.
SO U.S., 2 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3497553	A	19700224	US 1966-561043	19660628
				US 1966-561043 A	19660628

AB Propylene and isobutylene were oxidized in the presence of a catalyst having molar ratios of NiO 0.5-5.0, Cr2O3 0.5-2.0, and TeO2 and Mo2O3 0.5-4.0, and a Ni:Mo mole ratio of 0.1-1.0:1. Thus, Ni(NO3)2.6H2O 218.1, Cr(NO3)3.9H2O 150.1, and (NH4)6Mo7O24.4H2O 330 g were dissolved in 150, 100, and 440 ml distilled H2O, resp. The molybdate solution was added slowly to a mixture of the Ni and Cr solns., and 29.9 g powdered TeO2 was added. The paste obtained was dried at 100° in vacuo, baked for 16 hr at 400°, and ground to give a catalyst with a 2:1:0.5-5.0 Ni:Cr:Te:Mo atomic ratio. A supported catalyst was prepared by adding 375 g aqueous colloidal dispersion of microspheroidal silica containing 30-5% SiO2 (Ludox H.S). Propylene was oxidized in a fluidized-bed **reactor** containing 60 ml catalyst. Steam (0.127 mole/hr H2O) at 200-50° was passed into the **reactor**, and 0.0795 mole/hr O and 0.0317 mole/hr propylene were added, **preheated** to 200-50°, and passed into the **reactor** (Ni-Cr-Te-Mo-Si atomic ratio, temperature, % propylene conversion, % yield acrolein, and % yield **acrylic acid** given): 1:1:1:4:2.5, 425°, 94.9, 61.48, 22.97: 1:1:2:4:2.5, 430°, 66.47, 83.24, 10.41; 4:2:1:5:0, 385°, 83.72, 35.51, 33.31; 4:1:1:6:0, 395°, 89.76, 39.85, 34.89. The contact time was 18 sec.

```
=> d his

     (FILE 'HOME' ENTERED AT 07:35:05 ON 24 JAN 2005)

     FILE 'CAPLUS' ENTERED AT 07:35:17 ON 24 JAN 2005
L1        436322 REACTOR
L2         45882 PREHEAT?
L3          3537 L1(L)L2
L4        105288 ACRYLIC ACID
L5             0 L3N AND L4
L6            24 L3 AND L4
L7        566296 NITROGEN
L8             2 L6 AND L7
L9           268 PREHEATED GAS
L10            0 L6 AND L9
L11            0 L4 AND L9
L12           18 PREHEATED REACTOR
L13            0 L12 AND L4

=> \gas
       1405021 GAS
        481598 GASES
L14    1577505 \GAS
                 (GAS OR GASES)

=> gas
       1405021 GAS
        481598 GASES
L15    1577505 GAS
                 (GAS OR GASES)

=> l3(l)l15
L16        1949 L3(L)L15

=> /2(l)l3
MISSING TERM FOR FIELD QUALIFICATION BEFORE '/2'
The search profile entered contains a field qualifier, e.g., '/AU',
with no term preceding it.
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=> l2(l)l3
L17        3537 L2(L)L3

=> l2(l15)
MISSING OPERATOR 'L2(L15'
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> l2(l)l15
L18       15113 L2(L)L15

=> l17 and l18
L19        1953 L17 AND L18

=> logoff hold
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     76.48      76.69

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     -5.11      -5.11

 SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 08:09:36 ON 24 JAN 2005

Connecting via Winsock to STN



Welcome to STN International!  Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 08:38:57 ON 24 JAN 2005
FILE 'CAPLUS' ENTERED AT 08:38:57 ON 24 JAN 2005
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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     76.48      76.69

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     -5.11      -5.11

=> logoff hold
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     76.48      76.69

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     -5.11      -5.11

 SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 08:39:05 ON 24 JAN 2005

Connecting via Winsock to STN
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Welcome to STN International!  Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 09:11:34 ON 24 JAN 2005
FILE 'CAPLUS' ENTERED AT 09:11:34 ON 24 JAN 2005
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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    76.48      76.69

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -5.11      -5.11

=> d his

     (FILE 'HOME' ENTERED AT 07:35:05 ON 24 JAN 2005)

     FILE 'CAPLUS' ENTERED AT 07:35:17 ON 24 JAN 2005
L1        436322 REACTOR
L2         45882 PREHEAT?
L3          3537 L1(L)L2
L4        105288 ACRYLIC ACID
L5             0 L3N AND L4
L6            24 L3 AND L4
L7        566296 NITROGEN
L8             2 L6 AND L7
L9           268 PREHEATED GAS
L10            0 L6 AND L9
L11            0 L4 AND L9
L12           18 PREHEATED REACTOR
L13            0 L12 AND L4
L14      1577505 \GAS
L15      1577505 GAS
L16         1949 L3(L)L15
L17         3537 L2(L)L3
L18        15113 L2(L)L15
L19         1953 L17 AND L18

=> startup
           5235 STARTUP
            129 STARTUPS
L20        5314 STARTUP
                (STARTUP OR STARTUPS)

=> l1(l)l20
L21        1467 L1(L)L20

=> l2(l)l21
L22          23 L2(L)L21

=> d l22 10-23 ti

L22  ANSWER 10 OF 23  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Process for starting up coal gasification reactors

L22  ANSWER 11 OF 23  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Design construction and operation of a full scale downflow fixed film
     reactor using hogwaste substrate
```

L22 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Plasma engineering analysis of the Tennessee tokamak

L22 ANSWER 13 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Plasma engineering studies for Tennessee Tokamak (TENTOK) fusion power reactor

L22 ANSWER 14 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Design of a reactor system for the synthesis of titanium diboride

L22 ANSWER 15 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Sodium fill of FFTF

L22 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Methanization reactor

L22 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Kinetic study of the catalytic decomposition of liquid hydrazine. Effect of the initial temperatures of the catalytic bed and hydrazine for different ignition pressures

L22 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Wet air oxidation system for strong sludges and liquors

L22 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Analysis of filling accidents in Molten Salt Reactor Experiment

L22 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Release of fission products from reactor fuels during transient accidents simulated in TREAT

L22 ANSWER 21 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Operating problems in the production of petroleum naphthalenes from catalytic gas oil

L22 ANSWER 22 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Fungicidal tribasic copper chloride

L22 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI The disposal of radioactive waste

=> l4 and l22
L23 0 L4 AND L22

=> d l22 10 ti fbib abs

L22 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Process for starting up coal gasification reactors
AN 1991:210473 CAPLUS
DN 114:210473
TI Process for starting up coal gasification reactors
IN Duerlich, Manfred; Enders, Heinz; Wehner, Olaf; Findeisen, Hartmut; Thieme, Gerd; Toufar, Walter; Scholz, Guenter; Sowka, Karl; Graf, Hermann; et al.
PA VEB Gaskombinat Schwarze Pumpe, Germany
SO Ger. Offen., 5 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 4013739	A1	19910131	DE 1990-4013739	19900428

			DD 1989-331077	A 19890724
DD 285989	A5	19910110	DD 1989-331077	19890724
DD 285989	B5	19940414		
CZ 280247	B6	19951213	CZ 1990-3597	19900719
			DD 1989-331077	A 19890724
CN 1049024	A	19910206	CN 1990-104821	19900724
			DD 1989-331077	A 19890724

AB The coal gasification **reactor** start-up fuel mixture composition is varied during **startup** to steadily increase **reactor** temperature without forming an explosive mixture The mixture may be **preheated** or heated using steam. Inert gases, e.g., N2 or CO2, are used to increase temperature and prevent problems.

=> d l22 1-9 ti

L22 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Liquid water and air injection for improved management of an autothermal reformer

L22 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Fuel cell power plant and its startup method

L22 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Steady-State and Dynamic Effects of Design Alternatives in Heat-Exchanger/Furnace/Reactor Processes

L22 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Radially corrugated catalyst unit with rotatable start-up burner

L22 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Control of an autothermal network of nonstationary catalytic reactors

L22 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Development of an advanced startup procedure for a PIUS-type reactor

L22 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Catalytic air purifiers

L22 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI The simulation test to start up the PIUS-type reactor from isothermal fluid condition

L22 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Limiting cases and approximate solutions for fixed-bed reactors with periodic flow reversal

=> d l22 6 ti fbib abs

L22 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
TI Development of an advanced startup procedure for a PIUS-type reactor
AN 1998:643318 CAPLUS
DN 129:322394
TI Development of an advanced startup procedure for a PIUS-type reactor
AU Ito, Takahiro; Oyamatsu, Kazuhiro; Tsuji, Yoshiyuki; Tamaki, Masayoshi; Kukita, Yutaka
CS Dep. Nuclear Eng., Nagoya Univ., Nagoya, 464-8603, Japan
SO Journal of Nuclear Science and Technology (1998), 35(8), 554-563
CODEN: JNSTAX; ISSN: 0022-3131
PB Atomic Energy Society of Japan
DT Journal
LA English
AB An advanced **startup** procedure for the PIUS-type **reactor** has been developed. The procedure is related to the way to isolate the

primary loops from the borated **reactor** pool by establishing stable hot/cold water interfaces in the so-called d. lock sections. The procedure starts with accumulating **preheated** water in the high points of the steam-generator-side legs. Then, by restarting the **reactor** coolant pumps, the primary loops can be isolated from the pool as the primary loops reaches a uniformly higher temperature than the pool water. The addnl. components required for this procedure are only a low-pressure grade heater and a pump of small capacities. Since the isolation is achieved with the d. locks left open, the core shutdown and cooling capabilities by means of the natural circulation of borated water are maintained in case of any abnormal events during **startup.** The feasibility and the predictability of this procedure were investigated by running an experiment in a scaled single-loop facility and conducting an anal. using a 1-dimensional model. Both in the experiment and in the anal., the primary loop was successfully isolated from the pool.

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	94.18	94.39

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-6.57	-6.57

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 09:15:41 ON 24 JAN 2005

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:
* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 09:39:38 ON 24 JAN 2005
FILE 'CAPLUS' ENTERED AT 09:39:38 ON 24 JAN 2005
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	94.18	94.39

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-6.57	-6.57

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	94.18	94.39

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
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Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	146587	preheat$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01
L2	15944	shell near3 tube	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01
L3	1771	L1 and L2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01
L4	472	L1 same L2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01
L5	12	"1089353"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01
L6	550	562/598.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01
L7	0	L6 and L4	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01
L8	1	L6 and L3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01
L9	359007	reactor	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01
L10	12311	L1 same L9	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01
L11	4	L6 and L10	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01
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L13	0	("6651731").URPN.	USPAT	OR	ON	2005/01/24 13:01
L14	1	"3118927".pn.	USPAT	OR	ON	2005/01/24 13:01

L15	2	("3118927").URPN.	USPAT	OR	ON	2005/01/24 13:01
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L17	2	"6676808".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01
L18	1	"4061545".PN.	USPAT; USOCR	OR	ON	2005/01/24 13:01
L19	1	"4260821".PN.	USPAT; USOCR	OR	ON	2005/01/24 13:01
L20	1	"4341600".PN.	USPAT; USOCR	OR	ON	2005/01/24 13:01
L21	1	"4365081".PN.	USPAT; USOCR	OR	ON	2005/01/24 13:01
L22	1	"4365081".PN.	USPAT; USOCR	OR	ON	2005/01/24 13:01
L23	1	"4369097".PN.	USPAT; USOCR	OR	ON	2005/01/24 13:01
L24	1	"4986884".PN.	USPAT; USOCR	OR	ON	2005/01/24 13:01
L25	1	"6348135".PN.	USPAT; USOCR	OR	ON	2005/01/24 13:01
L26	1	"6348135".PN.	USPAT; USOCR	OR	ON	2005/01/24 13:01
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L29	38395	startup	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01
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L31	87	L1 same L30	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01

L32	0	L6 and L31	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/24 13:01

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2	BRS	L2	15944	shell near3 tube	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/24 13:01	
3	BRS	L3	1771	L1 and L2	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/24 13:01	
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7	BRS	L10	12311	L1 same L9	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/24 13:01	

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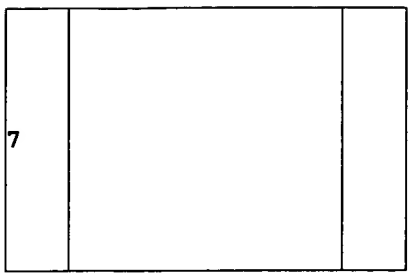
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9	BRS	L13	0	("6651731").URPN.	USPAT	2005/01/24 13:01	
10	BRS	L29	38395	startup	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/24 13:01	
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12	BRS	L32	0	L6 and L31	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/24 13:01	
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14	BRS	L14	1	"3118927".pn.	USPAT	2005/01/24 13:01	
15	BRS	L18	1	"4061545".PN.	USPAT; USOCR	2005/01/24 13:01	
16	BRS	L19	1	"4260821".PN.	USPAT; USOCR	2005/01/24 13:01	
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18	BRS	L21	1	"4365081".PN.	USPAT; USOCR	2005/01/24 13:01	

19	BRS	L22	1	"4365081".PN.	USPAT; USOCR	2005/01/24 13:01	
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23	BRS	L26	1	"6348135".PN.	USPAT; USOCR	2005/01/24 13:01	
24	BRS	L5	12	"1089353"	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/24 13:01	
25	BRS	L11	4	L6 and L10	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/24 13:01	
26	BRS	L15	2	("3118927").URPN.	USPAT	2005/01/24 13:01	
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32	BRS	L4	472	L1 same L2	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/24 13:01	

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